

ABSTRACT OF THE DISCLOSURE

A method of measuring a concentration of a material includes irradiating an infrared light onto a substrate having a layer including a first material and dopants, wherein the infrared light is partially absorbed by and partially transmitted through the substrate including the layer. Intensities of the infrared light absorbed in the first material and the dopants are computed according to light wave numbers by utilizing a difference between intensities of the infrared light before and after transmitting the substrate and layer and by utilizing a difference between intensities of the infrared light absorbed in the substrate and layer and absorbed in only the substrate. Concentrations of the dopants are obtained by utilizing a ratio of light wave number regions corresponding to predetermined intensities of infrared light absorbed in the dopants relative to light wave number regions corresponding to the predetermined intensity of infrared light absorbed in the first material.